

MOVABLE DOCUMENT CRADLE FOR FACILITATING IMAGING OF BOUND DOCUMENTS

ABSTRACT OF THE DISCLOSURE

Systems and methods for moving a document cradle to facilitate imaging of a
5 bound document are disclosed. The system may include a cradle supporting a document,
such as a book, a cradle positioner for selectively positioning the cradle relative to a
camera, and a controller for controlling the positioner to automatically position the cradle
based on the location of the page being imaged relative to the camera. The cradle may be
positioned such that a gutter of the book or a surface plane of each page being imaged
10 remains in approximately the same position relative to the camera. The cradle positioner
may include a servo motor controlling a shaft to position the cradle supported and guided
by a bearing. A sensor (e.g., 3D camera, range finder, laser, and/or edge detector) may
be provided to facilitate the controller in controlling the cradle positioner based on the
location of the page being imaged relative to the camera. The controller may control the
15 positioner based on, for example, current page count tracked by the controller, total
number of pages, thickness of the book, width of the gutter of the cradle, and/or weight of
the book exerted on one or both sides of the cradle.